# GEOGRAPHIC NEWS BULLETINS

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General Headquarters, Washington, D. C.

## Contents for Week of January 27, 1936. Vol. XIV. No. 27.

1. Little Rains and Big Rains—Ethiopian Allies
2. Manchester, Middleman of the English Midlands
3. New Records for Speed, Height, and Distance Set in 1935
4. Tangier Island "Ice-olated" Again
5. Finland—Somber Land of Forests and Lakes

*Photograph by Walter Mittelholzer*

**HIS MAJESTY ISN'T SORRY THAT IT LOOKS LIKE RAIN**

Emperor Haile Selassie, here riding a white horse on parade, wears a uniform combining the gilt braid of European rulers with the lion's mane dear to the hearts of his Ethiopian subjects, who regard the lion as an emblem of strength (see Bulletin No. 1).

**HOW TEACHERS MAY OBTAIN THE BULLETINS**

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## Little Rains and Big Rains—Ethiopian Allies

RAINY days are beginning in Ethiopia, and they're bringing cheer to Haile Selassie's soldiers. Cloudy skies mean the Little Rains are on the way, hampering Italian military movements with entanglements of plain, old-fashioned mud, bombardments of hailstones, and barrages of water that make raging torrents out of dry river beds and insignificant streams.

Mud and rain always have been the bane of armies, but mud and rain in Ethiopia cause more difficulty in traveling, perhaps, than almost anywhere else on earth.

### It Never Rains but It Pours

In Ethiopia it is literally true that "it never rains but it pours." Even the Little Rains are downpours. The longer it rains, the deeper becomes the mud—mud that sticks to men's boots in great gluey gobs and forms quagmires in which pack animals sink helplessly up to their bellies. Hard-surfaced highways are still practically non-existent in Ethiopia.

Modern Americans, driving easily along smooth paved roads either in sunshine or rain, may have forgotten how mud plagued their ancestors in horse-and-buggy days, but World War soldiers who served in France recall vividly the curse of mud on the Western Front.

The sticky red mud of Virginia gave the Confederacy a breathing spell each winter during the Civil War, for the Union forces advancing on Richmond could move neither wagons nor guns until spring sunshine dried the roads.

Ethiopia's mud is known as *Cheqa,* pronounced "Tyicka," and as the rains increase it may force both Ethiopians and Italians to take at least a partial breathing spell.

The Little Rains, or *Karaya,* now on the way, are less hampering to travel than the Big Rains, or *Dofe,* which halt practically all traffic (except the railroad) in Ethiopia between June and September. The Little Rains, according to the latest meteorological theory, come on the wings of winds from the southeast which carry moisture up over the mighty escarpments of the Ethiopian plateau. The cold of the heights condenses it, and it falls in torrential downpours.

### Hard Shower Every Day

During the Little Rains, there is a hard shower during part of almost every day, but afterward a brilliant sun dispels the clouds and the air becomes dry until the next storm. The Little Rains begin in earnest in February and last until April or May. Records at Addis Ababa show that the average rainfall over a period of 20 years jumps from half an inch in January to 1.89 inches in February, 2.76 in March, 3.42 in April and 2.95 in May. (Maximum rainfall for this 20-year period is 12.09 inches in August, during the Big Rains.)

Ethiopia's uplands are surfaced with fine, reddish-black earth, like a mixture of loam and clay, good soil for growing crops but one which becomes a thick paste, sometimes many feet in depth, when soaked.

Even during the Little Rains, sudden floods from the skies change the streams from mere trickles to raging torrents, which sweep away bridges, make fords impassable, undermine banks, and drown livestock. Every watercourse and gully becomes a boiling millrace. Small creeks overflow, and undrained level areas turn into swamps.



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**IT APPEARS THAT THE TYPICAL BUSINESS MAN OF FINLAND IS A WOMAN**

While the Finns are fishing or farming, their wives go to market—to do the selling and the buying as well. There are about 50,000 more women in Finland than men. Helsinki, the capital (above), discarded its Swedish name of Helsingfors when the country became a republic (see Bulletin No. 5).

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## Manchester, Middleman of the English Midlands

A MEMORIAL tablet unveiled recently in Manchester, England, commemorates the man who restored the city's second youth—Daniel Adamson. Six decades ago, having passed the peak of a wave of industrial development that made the "Black Country" black, Manchester's commerce was having transportation trouble.

Daniel Adamson was the doctor who brought relief by opening a canal, 36 miles long, from the sea to the doors of its factories. This jugular vein of commerce brought renewed vigor which gave Manchester the name of "Cottonopolis," and made it the finished-cotton export center of the world. Manchester today is struggling to hold that position, although the recent depression and foreign rivals have brought on hardening of the arteries.

### An Etching in Somber Blacks and Grays

The cheerless lines on the civic face of Manchester look as if they mean business, and they really do. The city has been so busy with importing, manufacturing, finishing, packing, selling, and shipping that it has had little time for beautifying.

Substantial, blackened warehouses, rows of cheerless dwellings, and a maze of railroads make Manchester a mammoth etching in velvety black and shades of gray, crowded with vertical lines of smoking chimneys and sharp angles of awkward cranes. For relief, its gloomy streets are enlivened with the rattle of bright red tramcars. Authorities disagree as to whether it rains in Manchester always, or whether it just seems like always; but they agree that the atmosphere is damp enough to be good for cotton and too smoky for new buildings.

This is one of the most densely packed population areas in the world. Manchester itself claims less than a million, but for all practical purposes the city extends its influence, if not its boundaries, through scores of suburban and industrial districts, containing within a radius of 75 miles a population about equal to that of Egypt, and more than that of all New York State.

This tight tangle of people, factories, and commercial transactions accumulated midway up the west coast of England largely by grace of the Manchester Ship Canal, which Adamson originated in 1882. Since January, 1894, in addition to bringing to Manchester docks sea-going ships weighing sometimes more than 12,000 tons, the canal affords protection from floods to the populous area on both sides of its banks. Twice as wide as the Suez Canal, Manchester's water lane to the sea is in direct connection with other barge canals and the principal railway systems in England.

### Its Cotton Web Enmeshes the World

Manchester is the nerve center of the entire English cotton industry area, which extends some 40 miles into Lancashire. Five miles of docks, acres of warehouses, whose massive features show that the architect dared no ornamental nonsense; countless smoke-grimed windows of offices where fabulous figures for bales, vats, and boats accumulate to fatten ledgers; the Royal Exchange, probably the largest commodity market in the world, with more than ten thousand members, whose voices keep the cotton tides sweeping around the world—these have made the city England's biggest and busiest, after London, and one of the great commercial centers of the world.

Although specializing in finer cottons and piece goods, Manchester exports all types, and produces about half, by value, of the whole world's export of cotton goods. Girls in Latvia have discarded the snowy kerchief of their mothers' generation to wear bright printed bandannas from Manchester. Overalls on Australian farms, dungarees in South American airports, khaki uniforms on police in Penang, and figured pareos on South Sea Islands maidens have almost all had an ocean voyage from Manchester.

Gay squares of India print travel from Egypt to Manchester as raw cotton, to India as bolts of "gray," or unbleached, cotton, then emerge triumphant from India as scarf or bedspread. Manchester cotton binds books, covers umbrellas, wraps wounds, decorates as cretonne, protects as canvas, covers furniture as jaspe, dries dishes as tea towels, or is made into shirts, sheets, socks, and knitted wear.

But Manchester is really More-than-cotton-opolis. Cotton has made possible great plants for making cardboard and paper, printing, and binding books, and has necessitated a huge chemical industry for bleaching, dyeing, sizing, and soap making. Rubber is processed into tires and waterproof textures. Nearby coal mines feed steel industries which produce automobiles, airplanes, motors, engines, chains, safes, and even nuts and bolts. Manufacture of



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The swamps and standing pools of water become excellent breeding places for malarial mosquitoes. Later, during the Big Rains, the steaming, soaked earth and humid atmosphere make it easier for other diseases to take hold.

Natives stay indoors as much as possible during the Big Rains. Those who travel are usually protected by huge mats of plaited grass, which they wrap around their shoulders in the shape of glorified beehives. They can curl up within such portable shelters, like turtles in their shells, when it rains too hard. In Addis Ababa it has rained as much as 10 inches in 20 hours, and hail is sometimes so large and thick as to pelt a traveler painfully.

But the rains that bring most of Ethiopia to a standstill are an unmixed blessing to the Anglo-Egyptian Sudan and Egypt, watered by the Blue Nile, which rises in Ethiopia's Lake Tana. The torrents of the Big Rains rush annually down the Nile, bringing with them countless tons of rich Ethiopian soil.

As this water arrives in the Nile's lower reaches, it causes annual summer floods. These spread the soil of Ethiopia's highlands over Egypt's fields, bringing the fertility that has fostered alike the ancient civilizations of the Pharaohs and the prosperity of Egypt today.

Note: Students preparing units of work about Ethiopia should consult the following: "Open-Air Law Courts in Ethiopia," *National Geographic Magazine*, November, 1935; "Traveling in the Highlands of Ethiopia," September, 1935; "Life's Tenor in Ethiopia," June, 1935; "Modern Ethiopia" and "Coronation Days in Addis Ababa," June, 1931; "Nature and Man in Ethiopia," August, 1928; and "A Caravan Journey Through Abyssinia (Ethiopia)," June, 1925.

See also in the GEOGRAPHIC NEWS BULLETINS: "Makale, Ethiopia's 'Salt Seller,' Again in Italian Hands," week of December 9, 1935; "Aksum Has Been Holy City of Ethiopia for Many Centuries," week of December 2, 1935; "Ogaden, Where Ethiopia's 'Stork Men' Lurk," week of November 11, 1935; "Is It Ethiopia or Abyssinia?" and "Addis Ababa, Modern Capital of an Ancient Empire," week of October 7, 1935; and "Wanted—An Ethiopian-Italian Somaliland Boundary Line," week of March 18, 1935.

**Bulletin No. 1, January 27, 1936.**

*Photograph by Harry V. Harlan*

**EVEN IN DRY WEATHER ETHIOPIA'S ROADS ARE TERRIBLE**

**With paved roads almost unheard of, except in the capital, Ethiopia's traffic problem is not too much speed, but too little movement at all. The donkey in the upper left-hand corner of the picture, might sink several feet into mud after rain has passed this way, for all roads become either miniature mountain torrents or quivering masses of mud. In the Italo-Ethiopian war, it is Nature that raises the old battle cry, "They shall not pass."**

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## New Records for Speed, Height, and Distance Set in 1935

CONTINENTS and countries were drawn closer together during 1935, communications speeded up on land and sea, and man propelled farther and faster through the air than ever before.

Outstanding events were the first airplane crossing of the mid-Pacific Ocean between California and the Philippines in less than a week elapsed time, and a flying time of 59 hours and 47 minutes; crossing of the Atlantic by the steamship *Normandie* in less than four days; a record railway run from Los Angeles to Chicago in 39 hours and 34 minutes; setting of a new world altitude record for manned balloons by *Explorer II*, nearly 14 miles above sea-level; and a quadruple breaking of the long-distance non-stop record for seaplanes—first 2,504 miles, then successively 2,685 miles, 3,110 miles, and 3,300 miles.

The *China Clipper* covered 8,190 miles for the first flight between California and the Philippines, leaving Alameda November 22, and arriving at Manila November 29, with landings at Honolulu, Midway Island, Wake Island, and Guam.

### Streamlined Ships and Trains Cut Travel Time

Three new transatlantic records for steamships were established by the *Normandie*. The best was set September 29, when the *Normandie* ended a new west-east run in 3 days 23 hours.

Many new railway services and speed records were established during the year. On January 28 a nine-car electric train ran from Washington to Philadelphia and back—270 miles—in 3 hours and 59 minutes, attaining a top speed of 102 miles an hour. Regular service between Washington and New York of 3 hours and 45 minutes was later established (see illustration, next page).

Between New Haven and Boston, a streamlined train on April 29 covered the 156.8 miles in 143 minutes, an average speed of about 65.8 miles an hour. It reached a maximum speed of 110.5 miles an hour.

On June 8 a train of six streamlined cars and a Diesel powered car, completed the 2,250-mile run from Portland, Oregon, to Chicago in 39 hours and 44 minutes, cutting 19 hours and 15 minutes from the old running time.

### New Trains Average over a Mile a Minute

Another speedy trip was made October 17, on a test run by a nine-car Diesel-driven train when it covered the 2,228 miles between Los Angeles and Chicago in 39 hours and 34 minutes, cutting 15 hours from the regular running time.

In September, 16½-hour service was inaugurated between New York and Chicago by means of steam-drawn passenger trains. A schedule of 6½ hours for the 431 miles between Chicago and St. Paul was put in force, cutting 3 hours from the old running time. On a test run in Nebraska, October 23, a streamlined train made a top speed of 122 miles an hour.

In Germany a Deisel-driven train regularly covers the 360 miles between Berlin and Köln (Cologne) in 5 hours, at an average speed of 72 miles an hour.

A new transcontinental airplane record was established by Major James Doolittle, January 14, 1935, flying from Glendale, California, to New York in 11 hours 59 minutes; on February 21, when Leland S. Andrews flew from Los Angeles to New York in 11 hours 34 minutes; and on April 30 when D. W. Tomlinson lowered the time from Los Angeles to New York to 11 hours 5 minutes 45 seconds.



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glass, making of pottery, and baking of bricks send full trucks dockwards, which return loaded with fish, meat, grain, and fruit.

Now that Manchester has made itself a key commercial city, it is trying to spruce up a bit. Housing projects attempt to eliminate slums. Parks, zoos, and art galleries are maintained. A few massive public buildings, of modified Gothic or Greek architecture, flaunt white or red fronts as a protest against the prevalent "Early Warehouse" style of building.

As it furnishes finance and soot to its neighboring cities, Manchester also serves as an intellectual center. Victoria University and numerous technical schools supply mental background for Lancashire merchants and artisans. The home of canal-builder Adamson is now part of the Shirley Institute, a great research laboratory devoted entirely to cotton. Many libraries have sprung up in the wake of merchant Chetham's gift to Manchester, the first free public library in the country and perhaps in the world.

There are also special bonds between Manchester and the United States. In addition to receiving vast quantities of American cotton, the English city has one of the few statues of Abraham Lincoln outside of the United States. From there Ann Lee sailed to found the religious sect of Shakers in the United States. To literature, Manchester has contributed a run-away son, Thomas DeQuincey, and its daughter-by-marriage, Mrs. Elizabeth Gaskell, who wrote "Cranford" and "Mary Barton." It was while waiting for a train in Manchester that DeQuincey wrote "Vision of Sudden Death." Another famous native was John Byrom, inventor of shorthand. The *Manchester Guardian* has long been an important international factor in journalism.

Note: Students interested in the geographical background of English life and industry should consult "Great Britain on Parade," *National Geographic Magazine*, August, 1935; "The Penn Country in Sussex," July, 1935; "Summering in an English Cottage," April, 1935; "England's Sun Trap Isle of Wight," January, 1935; "Vagabonding in England," March, 1934; "Beauties of the Severn Valley," April, 1933; "Between the Heather and the North Sea," February, 1933; "Some Forgotten Corners of London," February, 1932; "Visits to the Old Inns of England," March, 1931; "Oxford, Mother of Anglo-Saxon Learning," November, 1929; "Down Devon Lanes," "Through the English Lake District Afoot and Awheel," and "A Tour in the English Fenland," May, 1929; "Vacation in a Fifteenth Century English Manor House," May, 1928; "London from a Bus Top," May, 1926; and "Char-á-Bancs in Cornwall," December, 1924.

**Bulletin No. 2, January 27, 1936.**

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**MANY A THING OF BEAUTY SPRINGS FROM DINGY MIDLAND FACTORIES**

**The towns and cities within Manchester's shopping and shipping area are nearly as famous for their distinctive type of export as is Manchester for cotton. Little Cliburn, for instance, on the edge of the Lake District, makes pottery jugs and bowls. The "Black Country" could almost be called the clay country, too, for Manchester is built largely with bricks made of clay from its own clay pits.**

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## Tangier Island "Ice-olated" Again

WHITE flag for food needed, red flag for doctor needed! Tangier Island, in lower Chesapeake Bay, without a telephone on its two-by-three-miles area, recently hoisted both flags when it was besieged by impassable acres of ice two feet thick. The signals were noticed by an airplane and, in response, a Coast Guard cutter broke through and "rescued" an appendicitis patient, transporting him to medical aid.

The Bay, from which Tangier earns its living, is at times dangerously hostile. In winter, ice may often bar passage of the mail boat from Crisfield, Maryland, which is the island's one regular contact with the outside world. Moreover, it is rumored that the "freeze" has killed thousands of crabs, crippling the island's chief industry. Seldom is anyone drowned, but severe storms have been known to cover the entire island with a foot of water, frightening the 2,000 inhabitants more than anything since the British stopped there in 1812 on their way to sack Washington.

### Content in Isolation

For almost three centuries, Tangier islanders have been marooned by the Bay. They could almost forget that their home is a tiny outpost of Virginia. Odd costumes, a Cornish accent, and a quaint mode of living survive there, attracting many visitors during the summer. Women wear exceptionally large sunbonnets, and some even protect their arms with cut-out stockings.

Tangier Island may be part of a submerged miniature peninsula from Maryland's Eastern Shore, just below the Maryland-Virginia boundary, which cuts across Chesapeake Bay from east to west. Surrounding waters of the Bay are so shallow that at least one venturesome islander has boasted of walking home from Maryland, 12 miles away, crossing two sounds. At no place is there sufficient depth for large boats. This inaccessible area is rumored to have served as many a pirate's cache and hideout.

Approaching the Island on a mail boat from Crisfield, through a dredged channel in the northern end, the visitor sees a low, marshy island, almost bare except for a narrow strip of houses and trees extending down the center like a backbone. A church spire rising above the quiet town marks the largest building, the only rivals being a store or two and a couple of long low sheds for packing seafood. Neat white-picketed cottages are bordered by tiny vegetable gardens in which the island's only "truck" is raised. On the southern tip stands Tangier Lighthouse, built in 1890.

### Only Tangier Taxi Is a Wheelbarrow or a Canal Boat

Along a tortuous channel the visiting boat enters a harbor dotted with fishing craft of the "bug-eye" type—sailboats characterized by two tall, slanting masts. In these and in smaller boats—called "cunners"—hardy islanders gather fish, oysters, clams, and crabs from the surrounding waters, enough to make a frugal living and win wide renown.

The sightseer must rely upon his own legs for transportation. Automobiles, as in Bermuda, are unknown, and there is only one horse on the island. Wheelbarrows, handcarts, a few bicycles, and many boats are the sole conveyances. Several canals cut through the island, suggesting the Netherlands, and substitute for roads and paths (see illustration, next page). Federal funds were provided



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January 11-12, 1935, Amelia Earhart flew from Honolulu to Oakland, California, in less than 18 hours. Laura Ingalls on July 11, made the first non-stop east-west crossing of the United States by a woman, flying from New York to Los Angeles, California, in 18 hours, 23 minutes. On September 12 Miss Ingalls broke the west-east record for women, flying from Los Angeles to New York in 13 hours 34 minutes 5 seconds.

A new long-distance non-stop flight record for seaplanes was made October 15 by an American naval seaplane which flew 3,300 miles from Panama to Alameda, California.

The speed record for land planes—352.388 miles an hour—was established September 12 by Howard Hughes at Santa Ana, California. The trip by air from Cape Town, Africa, to England was cut early in November by David Llewellyn to 6 days 12 hours 17 minutes, beating previous records by 18 hours 48 minutes.

A new automobile speed record of 301.337 miles per hour was set September 3 on the Bonneville Salt Flats of Utah by Sir Malcolm Campbell.

Among the miscellaneous records of the year were the following: (1) Most northern point ever reached by a ship under its own power was achieved by the Soviet ice-breaker *Sadko,* September 14, at latitude 82 degrees 32 minutes, north of Novaya Zemlaya, in the Arctic Ocean; (2) endurance record for airplanes established July 1, when a monoplane landed at Meridian, Mississippi, after remaining in the air approximately 27¼ days; (3) airplane record for women was broken in France by Mlle. Hilsz, June 17, when she rose to 38,714 feet; three days later this record was bettered by the Marquise Negrone, in Italy, with an altitude of 39,370 feet; (4) new altitude record for balloons, manned in an open gondola—32,700 feet—was reached by Captain Burzyuski in Poland July 22.

**Bulletin No. 3, January 27, 1936.**

*Photograph by Willard R. Culver*

**FLEET ELECTRIC TRAINS NOW SPEED TRAVELERS AND FREIGHT BETWEEN MAJOR CITIES OF THE ATLANTIC SEABOARD**

**Philadelphia, once the scene of Franklin's experiments to capture lightning, sees an electric train leave for Washington. Regular service between Washington and New York grew out of this pioneering trip, completing a continuous electrified right-of-way between Alexandria, Virginia, and New Haven, Connecticut.**

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## Finland—Somber Land of Forests and Lakes

FINLAND came into the news twice recently, once when its foremost composer, Sibelius, celebrated his seventieth birthday, and again, when the country paid its semi-annual debt installment to the United States.

The prosperity which enables Finland to pay its debts promptly is drawn largely from its forest resources. In this northland republic, forests of pine, spruce, and birch cover nearly three-fourths of the country's land area. Dense woods extend almost unbroken from the Gulf of Finland to Petsamo, a trading post near the Arctic Ocean.

These forests are of vital importance to Finlanders. Except in a very few towns most of the buildings are of wood, locomotives and factories generally burn wood instead of coal, and the country's chief exports are timber, pulp, and paper. Many of the immense rolls of newsprint unloaded on New York City piers come from Finland. The timber industry thrives best in the Savo and Carelia districts of eastern Finland, where forests grow densest and where waterways float heavy logs to sawmills.

### Forty Times "1,000 Lakes"

Over 17,000 square miles, comprising a large part of the country not blanketed with forest, is covered with water. Popularly known as "the Land of a Thousand Lakes," Finland is dotted with about forty times that number. Connected with each other by numerous rivers and 24 canals, Lake Ladoga and the Gulf of Finland supplement highways and railroads in furnishing a network of transportation for men, goods, and timber.

In 1933, nearly 14,000 timber rafts passed through the canals on their way to the country's 459 sawmills.

Finland's flag, with its blue cross on a white field, is said to represent the blue water of the lakes in summer, and the white snowfields of winter.

In the Savo district, as one traverses a narrow lake on a small steamer that glides between silent shores and threads its way in and out among wooded islands, one frequently has the impression of traveling through uninhabited forest. Trees that come down to the water's edge hide all sight of the farms and villages inland. Their presence is unguessed until twenty or thirty people troop down a path to a lakeside landing.

### Butter Is an Important Export

Farming and stockraising is done on coastal plains, on lake shores, in river valleys, and in forest clearings. The total area cultivated covers only 6.6 per cent of the country, yet it furnishes the livelihood of the majority of the people. In 1930, about 60 per cent of the country's total population of 3,667,067 was employed in agriculture. The principal food crops are rye, barley, and potatoes. Many acres are also planted in oats and hay for Finland's 1,745,000 cattle. Finland's rich butter vies with Danish butter in quality. Much of it is exported to England.

Approximately one-third of Finland lies north of the Arctic Circle, and has a small Lapp population that tends reindeer herds and drives boatlike sledges under the midnight sun and northern lights.

Finland is not in any sense a backward country. It is larger than the British Isles, almost as large as California, and less than one per cent of its inhabitants over



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last year for surfacing Tangier's only thoroughfare, a sandy lane 10 feet wide and about a mile long.

Walking down this main street might well be a spooky excursion at night, for many of the residents' front yards are family burying grounds!

Fishing, oystering, and crabbing provide means of support for nearly everyone on Tangier. The captain of the mail boat, the postmaster, the minister, and teachers are practically the only persons on the island who do not make their livings directly from the fishing industry. A small dairy provides necessary milk products, but the Bay furnishes the main courses on the islanders' dinner tables.

### Captain John Smith Named the Island

Legend tells that the little island was just two overcoats' worth when bought from the Indians in 1666. Captain John Smith discovered it, naming it to commemorate his eastern exploits, but was prevented by storms from landing.

The first white settlers brought five family names from the coast of Cornwall, names still predominant on the town's roster and tombstones—Crockett, Evans, Parks, Thomas, and Tyler. In one of the few large burying plots on the island, in use since front yards became filled, only three family names are found among three or four dozen tombstones. It has long been the custom to affix numbers after surnames, so that various branches of the same family can be distinguished.

Note: See also "Virginia—A Commonwealth That Has Come Back," *National Geographic Magazine*, April, 1929; and "Maryland Pilgrimage," February, 1927.

**Bulletin No. 4, January 27, 1936.**

*Photograph by Fairchild Aerial Survey, Inc.*

**HAUNT OF HARD-BOILED PIRATES AND SOFT SHELL CRABS—TANGIER ISLAND**

**Dangling down from eastern Maryland, Tangier Island is, however, a part of Virginia. But, perforated with small channels of Chesapeake Bay, and neatly sliced by canals (lower right), it looks as if it had been kidnapped from the Netherlands. Just off the northern tip, crab floats in hollow squares are "waiting rooms" in which captive crabs spend a day or two before shedding their outgrown shells. They are then shipped away alive in their new soft shells, iced and packed in sea grass.**

fifteen are illiterate. The remainder create the demand for the 518 newspapers and reviews published in Finnish and the 107 published in Swedish.

### Cattle Management Schools

Besides maintaining three universities, over 5,000 elementary schools, numerous lyceums and commercial schools, Finland trains her youth in 52 agricultural schools, 43 cattle-management schools, and 6 navigation schools. Finns have a passion for education. Finnish students frequently study ten hours a day.

Note: For additional photographs and data about Finland see "Where the Sailing Ship Survives," *National Geographic Magazine*, January, 1935; "Helsingfors—A Contrast in Light and Shade," May, 1925; "The New Map of Europe," February, 1921; "Races of Europe," December, 1918; and "Russia's Man of the Hour," July, 1917.

See also "Cape Horn Grain-Ship Race," *National Geographic Magazine*, January, 1933; and "Rounding the Horn in a Windjammer," February, 1931.

**Bulletin No. 5, January 27, 1936.**

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**"FARES, PLEASE," IN FOUR LANGUAGES**

**Finland, the homeland of women's rights, has many street car conductresses. Since one-eighth of the inhabitants of Finland are of Swedish descent, they almost always speak both Finnish and Swedish, and quite commonly they learn German as well as French or English. Often public servants in Finland are able to give directions in the language in which they are addressed.**